

Tritax Symmetry (Hinckley) Limited

HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

**The Hinckley National Rail Freight Interchange
Development Consent Order**

Project reference TR050007

Post Hearing Submission ISH1 and CAH1 [Appendix A Employee Numbers and Trip Generation Note]

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1. INTRODUCTION

- 1.1 This document is submitted as part of the Applicant's deadline 1 submissions.
- 1.2 As part of the action points arising from ISH1, the ExA requested that the Applicant provide the following items:
- A simple arithmetic summary setting out the derivation of 8,400-10,400 jobs;
 - Basic arithmetic summary of the traffic model volumes;
 - A paper explaining the relationship between the two models to show that the two models are robust and consistent with each other; and,
 - Revised version of the Transport Assessment to address the clarification.
- 1.3 This technical note satisfies the requirements of the first three bullets above and the updated Transport Assessment is submitted under separate cover for Deadline 1 (document reference 6.2.8.1A).

2. THE SOCIO-ECONOMIC MODEL

- 2.1 The purpose of the socio-economic model is to estimate the number of on and off site jobs created by the Proposed Development. The process followed in the model to estimate the number of on-site jobs is set out in the Arithmetic Note provided in Appendix A of this technical note and a summary is also included below.

On-site Jobs

- 2.2 The application of standard job density ratios on the floorspace of the Proposed Development and a vacancy rate of 6% results in an on-site employment of between 8,400 and 10,400 workers once fully occupied, depending on the employment density applied. The calculation is based on the steps set out in the Arithmetic Note (Appendix A) as is consistent with the approach used in assessments supporting other SRFI applications.

On and off site Jobs

- 2.3 Following the estimation of on-site jobs the model estimates additional jobs from multiplier effects once leakage and displacement are factored in. This process follows the Additionality Guide by the Homes and Communities Agency (HCA, 2014) and is based on the assumptions set out in Table 7.16 of Chapter 7: Land Use and Socio-Economic Effects (document reference 6.1.7, APP-116). The process is set out in paras 7.221 onwards, and summarised in Table 7.17 (document reference 6.1.7, APP-116).
- 2.4 Table 7.17 of Chapter 7: Land Use and Socio-Economic Effects (document reference 6.1.7, APP-116) shows all the calculations steps involved to estimate the on-site and off-site jobs that the HNRFI would generate. These are estimated to be 10,400-12,900 additional FTE jobs for the national economy, inclusive of the 8,400-10,400 FTE jobs created on site, also referred to at para 7.324 of the conclusions (document reference 6.1.7, APP-116).

- 2.5 These results are further applied in Appendix 7.1 Health and Equality Briefing Note (Document Reference: 6.2.7.1, document reference 6.1.7, APP-137) as employment is a key wider determinant of health influencing a range of factors which are conducive to good health and wellbeing.

3. TRIP GENERATION CALCULATION

- 3.1 It is standard practice within the Transport Planning discipline to use Gross Floor Area (GFA) to derive a trip rate for HGVs and Light vehicles for a future development of this land use type. The rates are based on observed movements at similar locations and applied on a value per 100sqm of GFA.
- 3.2 Trip rates are derived from empirical traffic and transport surveys at sites of specific land use types and known GFA. For industrial development the GFA is a fixed quantum at the time of the survey and as such the trip rate is calculated for the number of trips per 100 square metres of GFA. There are other variables in the sites used such as public transport availability at the time of the survey or travel plan in place etc.
- 3.3 The most recent transport assessments undertaken to inform the determination of application of other SRFI proposals including West Midlands Interchange, Northampton Gateway, DIRFT III and East Midlands Gateway, all utilised trip rates calculated in this way.
- 3.4 Trip rates and generation used in the Transport Assessment were agreed with the members of the Transport Working Group, a group made up of the main highway authorities with an interest in the DCO, and are appended to the Transport Assessment (6.2.8.1 Environmental Statement - Appendix 8.1 – Transport Assessment [Part 4 of 20] - Trip Generation Addendum, APP 141). The average of the rates derived from each of the SRFI studies was utilised for the calculations.
- 3.5 The trips generated for the B8 warehousing and distribution land use element of the Proposed Development are then calculated based on square meterage for this land use and the agreed trip rates per 100 square metres of GFA. This is set out in Appendix A, Table 7.7 of 6.2.8.1 Environmental Statement - Appendix 8.1 – Transport Assessment [Part 4 of 20] - Trip Generation Addendum, APP 141. The calculation multiplies the average trip rate for the vehicle type, being either light vehicles (including cars and vans) and heavy goods vehicles by the maximum floor area. This is done for the morning (AM) and evening (PM) highway peak hours and across the 24-hour period.
- 3.6 For example:
- AM Peak Total Light vehicles: $0.1195 * x (850,000/100) = 1,016$ AM Peak two way trips.*
- *Trip rate derived from similar SRFI applications per 100sqm as set out in Appendix A, Table 7.7 and with resultant trip generation in Table 7.8 within Ref 6.2.8.1 part 4 of 20 – Trip Generation Addendum and PINS document ref APP 141.*
- 3.7 Rail to/from HGV figures were calculated separately and added to the totals for the 850,000sqm ensuring a highly robust HGV derivation (Appendix B of Ref 6.2.8.1 part 4 of 20 – Trip Generation Addendum, APP 141).
- 3.8 Annual Average Daily Traffic (AADT) flows and Annual Average Weekday Traffic (AAWT) flows were provided for air quality and noise assessment purposes from the Leicestershire Regional Strategic model (PRTM) team. A range of factors were used specific to each road type and link assessed. The development traffic included in the PRTM model used the trip generation within the agreed Trip Generation Addendum document.

- 3.9 On review of the absolute projected trip generation figures for the entire development (Table 7 within the Trip Generation Addendum note (6.2.8.1 Part 4 of 20) APP 141) equates to 8,200 light vehicle trips to and from the site across 24 hours (16,438 two way).
- 3.10 For the range of estimated employment figures (8,400 to 10,400), this level of light vehicle movement is reasonable when allowing for shift patterns, attendance, and the typical mode share.
- 3.11 For example: for the upper figure in the range of employees:
- 8,200 agreed daily light vehicle generation / 10,400 employees = 79% of travel to site would be by car.*
- 3.12 The above is comparable with (but higher than) the reported 2011 Census data (6.2.8.2 Environmental Statement - Appendix 8.2 - Framework Site Wide Travel Plan [Part 1 of 4], APP-159) where the mode split for travel to work for car drivers in the vicinity of the site in Blaby was 75%.
- 3.13 Employee trips are also managed through the travel plans and providing sustainable measures and infrastructure before occupation and during the lifetime of the development.

4. SUMMARY

- 4.1 This technical note sets out how the employment numbers have been generated for the HNRFI application and how the trip generation rates have been calculated. The note clarifies that both figures are based on the industry standard best practice approaches for each discipline.
- 4.2 On the basis of the approach and methodology set out above in relation to trip generation, this model has then been used to inform the air quality and noise traffic based assessments which are therefore considered to be consistent and robust assessments. Further assumptions are made in those assessments to ensure a robust Rochdale Envelope has been assessed.

APPENDIX A ARITHMETIC NOTE ON ONSITE JOB CALCULATION

Purpose

The purpose of this arithmetic note is to provide the calculation steps used in estimating the number of on-site jobs for HNRFI. These are estimated to be between 8,400 and 10,400 jobs Full Time Equivalent (FTE).

Employment Density

The HNRFI is likely to accommodate a mix of National Distribution Centres (NDCs) and Regional Distribution Centres (RDCs), with the exact split yet to be determined (Paragraph 7.212 of Chapter 7 of the ES, APP-116). The Homes and Communities Agency (HCA) Employment Density Guide (2015) advises applying 95 sq.m of Gross External Area (GEA) per job for NDCs, and 77 sq.m (GEA) per job for RDCs (Paragraph 7.211, APP-116).

Vacancy

To estimate operational employment we have also considered vacancy, which reduces the employment levels on-site (Para. 7.213 of ES Chapter 7, document reference 6.1.7, APP-116). A degree of vacancy is necessary for the market to function efficiently, as businesses relocate to more appropriate premises. Current vacancy in the Property Market Area is 2.8% compared to 3% at the national level (Para. 5.2.5 of the Logistics Demand & Supply Assessment, document reference 16.2, APP-358). More normal levels of vacancy would be around 6% in line with the national average over the last 10 years, and is applied to the on-site operational employment estimates resulting in a more robust assessment.

Calculation Steps

The calculation is based on the following steps for the RDC and NDC scenarios.

Onsite Jobs= (Proposed Floorspace *(1- Vacancy Rate)) / Applicable Employment Density

The inputs are also provided below alongside the worked examples

Proposed Floorspace (GEA)= 850,000 sqm (including 200,000 sqm of mezzanine)

Vacancy Rate= 6%

Employment Density NDC= 95 sqm per FTE

Employment Density RDC= 77 sqm per FTE

The calculations steps for each scenarios are provided below

NDC Scenario: 8,411= (850,000 * (1-0.06))/95

RDC Scenario: 10,377=(850,000 * (1-0.06))/77

The end results have then been rounded and used in the chapter.